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## SECTION 3

### IMPLEMENTATION PLAN

#### DECADE BY DECADE VIEW OF THE FOREST

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##### Introduction

The previous section (2) described general and specific landscape objectives. The next section (4) describes management guidelines designed to support these objectives and achieve desired future conditions.

The purpose of this section (3) is to describe how the objectives and guidelines will be implemented over time to make the desired future conditions a reality.

Implementation of this plan will result in long-term productivity of school trust lands and produce collateral benefits to other resources. To the fullest extent possible, consistent with the Department's trust obligations, the implementation plan will integrate the recommended goals and objectives for the 10 key resources identified by the Citizen Advisory Committee. Management activities will be consistent with trust obligations and Forest Resource Plan policies.

Trust obligations are of primary concern. Meeting these obligations requires significant short-term harvest of at-risk and dead timber without precluding options for long-term management.

The Department used several computer systems and models to assist in developing the specifics for plan implementation. Most notable was the Scheduling Network and Analysis Program (SNAP). This modeling allowed the Department to depict, over space (the forest) and time (80 years), various outcomes based on differing proposed land management activities and limitations. This model was not available for eastern Washington forests until it was developed as a planning tool for the Loomis planning effort. Had it been available at the same time as it was for western Washington forests, the beetle infestation would have been more easy to respond to.

Due to the size of the project and complexity of the issues, use of SNAP and other systems was essential in order to come up with the preferred draft landscape planning scenario described in this document. The modeling results are approximate and will be refined based on site-specific analysis of issues as actual operations are carried out. It is necessary to add here that, as with

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any model, it is limited by the actuality of what happens on the land. Over time, we expect to achieve the results as modeled, but long term monitoring will determine what management adjustments need to be made.

The environmental impact statement that accompanies this plan displays in detail the analysis of the proposed landscape plan and its potential impacts. Following are the major planning strategies and assumptions used in developing the proposed plan.

### **Harvest Scheduling**

A major consideration in harvest scheduling is the mountain pine beetle infestation in the lodgepole pine stands. Harvest operations in these stands need to be economically sound, operationally feasible, and environmentally reasonable. Operations will focus on at-risk and dead stands during the first decade, with heightened activity during the first half of the decade. Economic factors, such as road costs and timber markets, and environmental factors, per the Lynx Management Plan and the Forest Resources Plan, will help determine which areas will be harvested and when. This plan assumes that:

- \* Most dead wood is limited to pulp value after five years unless a specialty market for (house logs) material is available.
- \* Harvests will be primarily even-aged, with a secondary focus on partial cuts in conjunction with even-age harvest to take advantage of economic and operational efficiencies.
- \* Even-age harvest in dead stands reduces the potential for major fires and increases the opportunity for effective fire control activities.

### **Harvest Unit Sizes**

A variety of unit harvest sizes were considered. The option of up to 100-acre even-age units, with exceptions up to 200 acres, allows the Department to better disperse operations over the landscape while limiting road construction. Harvest units of 100 acres may encompass two or more units that are harvested sequentially. Combining nearby partial-cut units along with these even-age units will provide for economical harvest operations and increased financial return to the trust. Other advantages include:

- \* Larger unit size causes less habitat fragmentation than smaller unit size.
- \* Less environmental impacts associated with up to 100-acre units rather than larger units, with more flexibility for location and hydrologic maturity needs.
- \* Size is large enough to begin developing reasonable age-class mosaics across the landscape.
- \* Unit size is more economically efficient for carrying road construction and yarding costs than smaller units.

### **Late Successional Habitat**

The plan assumes that 25 percent of each subalpine fir zone (mesic and wet) and Douglas fir zone will be managed to provide late successional forest interior characteristics. It is anticipated that this habitat will be capable of sustaining wildlife communities dependant on this habitat structure and reduce the risk of species being listed as endangered or threatened under the federal Endangered Species Act. While this complicates operations, it protects the trust by

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decreasing the chance that future harvest operations will be more severely restricted due to problems with individual species, as is now occurring with the lynx. This approach implements Forest Resource Plan Policy No. 22 (pages 37-38).

### **Riparian Management Zones**

Variable-width riparian management zones (RMZ) are needed to provide minimum protection for fish and wildlife habitat, as required through Forest Resource Plan Policy No. 20 (pages 35-36). They also provide wildlife habitat corridors. Experts consulted during the planning process helped determine the following requirements:

- \* Post-harvest RMZ species composition and diameter distribution will reflect the pre-harvest stand.
- \* RMZs in lynx analysis units will contain a minimum of 180 trees per acre, and will be 300 feet wide when associated with wildlife travel routes.
- \* Generally RMZ widths will average 100 feet on each side of type 1-3 waters, 50 feet for type 4 waters, and as needed for type 5 waters to protect slope stability.
- \* Up to 30 percent volume removal will be allowed in RMZs, provided riparian functionality is not compromised.

### **Leave Trees**

The plan calls for approximately 13 leave trees per acre, including eight green trees per acre and five wildlife trees per acre in shelterwood harvest units. The green trees may be low-value, deformed trees representative of the stand, while the wildlife trees can be dead trees if any are available. This provision is also based on Policy No. 22 of the Forest Resource Plan, which attempts to maintain populations of wildlife species and reduce the risk of their being listed as endangered or threatened. Leave trees can help accomplish this goal by providing:

- \* Necessary habitat for cavity nesters.
- \* Development of late successional characteristics in some harvest units.

### **Hydrologic Maturity**

Hydrologic maturity refers to rates of evapotranspiration, interception of precipitation, and the influencing of snowmelt processes. As opposed to fully stocked or mature timber stands, new clearcut and shelterwood harvests are considered open and hydrologically immature, as are dead stands. A hydrologic maturity threshold of 60 percent has been established as necessary to meet water quality and quantity needs, limit peak flows, and limit stream channel degradation from abnormal peak flows.

### **Lynx Habitat**

Lynx habitat guidelines have been established in the Department's draft Lynx Management Plan. That plan, combined with the operations described in this Landscape Plan, provides a long-term strategy with respect to managing lynx habitat. Application of these guidelines will help preclude impacts on the trust from the possible future listing of lynx as endangered and avoid potential added regulatory restrictions. Key provisions include:

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- \* Harvest units that create forage habitat will generally not exceed 100 acres.
  - \* A minimum of 70% of the forested habitat in each LAU will be maintained as forage, travel, and denning habitat for lynx.  
(Natural openings are not counted as part of the non-lynx habitat constraint.)
  - \* Reproduction must reach seven feet tall in post harvested units (or aggregated blocks of harvest units equaling 200 acres) before adjacent harvest units can be even-age harvested.

### **Roads**

Roads are integral to management of the forest and are evaluated at the landscape level for planning purposes. Major planning considerations can be broken down into road design, construction, and maintenance.

- \* For economic and environmental reasons, road construction and active use will be limited to the minimum needed for forest management (see Potential Transportation Activity by Decade-page 38).
- \* Roads will be designed to fit the harvest strategy for the entire forest. Road systems serving only partial-cut harvests in lodgepole pine stands are generally not economical, and must be combined with shelterwood harvest units.

The rest of this section highlights the key strategies and limitations to be applied across the landscape, decade by decade, as the plan is implemented. It has taken years for the forest to reach its current state and it will take many years to successfully reach the desired future conditions outlined in this plan.